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ABSTRACT

The meaning of instructional design is explored as it relates to four ideological aims of education: The Cultural Transmission; The Romantic; The Progressive; and The Critical. Definitions of "instructional design" and "ideology" are first presented, and the four ideologies are briefly described. A heuristic (in matrix format) is then presented to indicate the relationship of instructional design to each of the ideologies in terms of who designs, what is designed, for whom it is intended, why do it, and how it should be done. It is argued that the use of instructional design is ethically justified only if it meets certain criteria most associated with the critical position. (GL)

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WHO DESIGNS WHAT, FOR WHOM, WHY AND HOW? SOME PRELIMINARY THOUGHTS ON INSTRUCTIONAL DESIGN AND EDUCATIONAL IDEOLOGIES

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DRAFT

Who Designs What for Whom, Why, and How? Some Preliminary Thoughts on Instructional Design and Educational Ideologies

My intent in this paper is to explore the meaning of instructional design as it might relate to four ideological aims of education: The Cultural Transmission, The Romantic, The Progressive, and The Critical. I start by offering a definition of Instructional Design and Ideology. Next, I describe briefly the four ideologies. I then construct a heuristic to discover the relationship of instructional design to each of the ideologies in terms of who designs, what is designed, for whom is it intended, why do it, and how should it be done? Finally I argue that the use of instructional design is ethically justified only if it meets certain criteria most associated with the critical position.

Definitions

As indicated by my somewhat dated Oxford Abridged, (Onions, 1955: 1019), the verb instruct meant initially in 1447 "to build up, to build (a structure)." By 1526, it was used to denote "furnish with knowledge or information", "to furnish with authoritative direction as to action" and by 1620 to teach (a thing).

The noun instruction since 1506 is described as "the action of instructing or teaching, the impacting of knowledge or skill, education, information" and "making known to a person what he is required to do: a direction, an order, a mandate."

Design (ONIONS, 1955: 490) as a verb in 1553 meant " to destine to a fate or purpose". In 1664, the word was used in the sense of setting "a part in thought for some one." As related to art, in 1666, design indicated "to plan and executive; to fashion, artistic skill or decorative device" and some thirty years later, in 1697, it was used as the making of "the preliminary sketch of; to make the plans and drawing necessary for construction."

The noun design in 1593 denoted "a plan or scheme conceived in the mind of something to be done; the preliminary conception of an idea that is to be carried into effects by action."

In 1665 design meant a "contrivance in accordance with a preconceived plan, adoption of means to ends, pre-arranged purpose" A somewhat different understanding is cited for 1704 as "in a bad sense: Crafty contrivance" and " a scheme formed to the detriment of others."

As a noun, design has also more direct reference to art as "a preliminary sketch for a work of art; a delineation, in 1638 a pattern" (1638) and " in 1644, the combination of details which go to make up a

work of art; artistic idea as executed, a piece of decorative work and artistic works. In 1875 this sense of design was applied to literature as well.

From this brief voyage through the Oxford, I bring home the following. Instruction is an external activity in which knowledge, including information and skills, is imparted from someone to someone else through direction and requirement. Design is a preconceived plan or a conception of something to be done, it is means to end with a prearranged purpose.

While design applies to a broad range of human activity, it has special relevance to works of art. Also within the boundaries of its definition are the notions of plot and scheming to the harm of others.

Thus, instructional design is a preplanned process by which knowledge and the requirements for gaining knowledge are given from a source to a receiver. As well, instructional design can connote both an artistic specificity and a pejorative purpose.

An additional issue of definition requires attention before describing the four ideologies. The word ideology itself needs some explanation and to accomplish this, I have drawn from Raymond Williams KEYWORDS

(1983). Its first modern usage, attributed to Napoleon Bonaparte, was negative. He used it to attack the proponents of democracy and the principles of the enlightment. The pejorative sense remained during the 19th century and often became synonymous with "revolutionary". Marx and Engels' usage retained the derogatory nature of ideology as false consciousness, as abstract and false thought, "an upside down version of reality" (Williams, 1983:155). Within the Marxist tradition, the word also became linked to economic and class analysis, " the set of ideas which arise from a given set of material interests, or more broadly, from a definite class or groups" (Williams, 1983: 156-157). Thus, rather than negative, ideology became some what neutral in its meaning. It required a qualifying adjective to describe those interests which it served; thus, "proletarian ideology" and "bourgeois ideology" could be described.

I take the term for the most part from this latter interpretation yet expanded it beyond the economic. Ideology is a collection of premises, a systems of ideas which form a coherent world view about a particular phenomenon. In education, therefore it is possible to examine the four educational aims or positions as ideologies. It becomes a most useful and dynamic mechanism to help in understanding that various conceptions of educational aims and purposes are certainly ideological with their own paradigms and perspectives. And further, by incorporating the negative nature of ideology I claim that indeed some educational aims are "false" or at least not "as true" as others.

At this point two caveats need to be made clear. First in attempting to distinguish different camps of educational practice, there is often a tendency to overdraw, to stereotype, to compartmentalize in order to make the comparisons. Additionally, there is a chance to moralize too soon and offer the "new good" in contrast to "the old evil" Yet dialectic and oppositional thought and language, in a strong sense, are blameless for the new can only grow from the old (using "new and old" as illustrative only for the Greeks struggled with the same issues of classification) There is some merit, yes something moral, in the old, as well as some questions, yes something suspect, in the modern.

The second caveat is a recognition of the extreme difficulty, at least for me, in the classification exercise itself. I find it virtually impossible to fine tune all ideas to make them fit in a conceptual box. As soon as I think I have them captured they squirt loose and go somewhere else. Its like hitting a pillow, "take that IDEA", POW, in it goes, but damn it, it pops out somewhere else. Its like trying to herd cats, just when I think I have them in some reasonable order, one or two break loose and head off once again in a new direction on their own.

<u>The Four Ideologies</u> are labeled The Cultural Transmission, The Romantic, The Progressive, and The Critical of which the first three are drawn from Kohlberg and Mayer (1972).

The Cultural Transmission ideology posits that the primary task of education is the transmission to the present generation bodies of

information, rules, and values collected in the past. Traditional educators believe that their job is the direct instruction in such information, rules, and values. Two wings within this tradition are the behavioristic/positivistic and the traditional academic/humanistic.

The behavioristic, drawing its substance from a positivistic technical rationality, conceives of a world amendable to rational and scientific procedures and technique with "instrumental problem solving made vigorous by the application of scientific theory and technology" (Schön, 1883:21). In this condition, learning results from the efficient application of a priori discovered laws and principles and teaching becomes the execution of applied science. Carr and Kemmis (1986:20) capture the essence of this approach:

> "...to produce scientifically verified knowledge that can be used to ensure the pre-established educational goals are achieved by the most effective means...(and)...the professional expertise of teachers does not derive from any overriding concern with educational values and goals, rather it stems from possession of the technical skills required to apply scientific theories and principles...(and)...professional competence, therefore, is judged not by reference to the way in which teachers formulate their aims but by the effectiveness of their practices in achieving whatever aims are being pursued."

It makes little difference whether the scientific theories and principles to be applied relate to psychology, artificial intelligence, computer based learning, or computer assisted learning.

Also implicit in the technical rational position is an assumed value neutrality unfettered by contextual or milieu puzzelments. In a reference to a chapter entitled "Designing Instructional Systems", Gagné and Briggs (1976:19) describe the design of instruction "...as an activity more or less independent of personnel administration, budgeting, and other aspects of school management." The design function is perceived as crystaline pure and unrelated to value conflicts that always undergird struggles over personnel, budget, and organizational issues.

Additionally, for the behaviorists, the educational process begins by deriving from the society the goals seemed important by the society. In discussing the stages in designing an instructional system, Gagné and Briggs (1917:23-24) write: "recent writings treating the topics of needs analysis have defined a need as a discrepancy or gap between the way things "are" and the ways things "ought to be" in elementary and secondary schools ...the 'ought to be' should be established by public consensus, expressed in terms of what school children should be learning and how well."

Such a position cannot take into account that the "societal" consensus might be wrong on at least two interrelated accounts. First, it ignores the fact that consensus often structurally excludes significant proportions of the population from the consensus making process itself. Second, it offers no mechanism by which the ethical ramification of the consensus can be judged. After all, Albert Spear in Nazi Germany ran

his munitions factory utilizing consensus achieving processes. (Singer and Wooton, 1976).

The academic/humanistic wing of cultural transmission finds its most recent elaboration in Alan Bloom's (1987) paean for THE canon which is captured in great books, in William Bennett's (1988) curriculum to preserve and transmit our "common culture", and in Hirsch's (1987) list of what every culturally literate American needs to know. Ryan (1986:231) captures the essential nature of the academic cultural transmission beliefs:

> In the Eighties, culture is once again viewed as a human achievement that should be transmitted to the young. To transmit the culture, however, we must introduce the young to its ethical principles and moral values. In other words, much of schooling should be vigorously devoted to teaching the young those things that the society has learned about how to live together in a civilized fashion.

When Ryan writes of <u>the</u> society, he writes of Western society. When Bloom speaks of the American mind, he refers to white, middle class largely male minds; he wants us all to take quite seriously as Giroux (1988:119) states, "the canonical status...(of)...the old great books that embody his revered notion of Western Civilization."

Now it is probably true that the Blooms, the Bennetts, and the Hirsches would not be pleased to find themselves in bed with the Skinners, the Gagnés and the Benjamen Blooms. The former trio would certainly take

issue with the latter threesome for their assumed value neutrality and their allegiance to technology, control, and technical prediction, yet structurally, both camps assume at the base that which is important to learn and value is given by the culture as it exists or existed. Since all knowledge is culturally given, and exists prior to learning, it is the function of the educator to ensure that the students "get it." Whether the "it" is gotten by working through a five component instructional system including objectives, content, materials, methods and evaluation (Kaufman and Thiagarajan, 1987:127) or through the traditional and liberal great ideas deemed basic to Western culture in a didactic and sometimes although not exclusively, socratic manner (Adler, 1982), the ultimate results is one of social control in which students learn from external authority to adjust and passively accept what Philip Cusick (1983:25,71) titles: "positive knowledge":

> By positive knowledge I mean that which is generally accepted as having an empirical or traditional base....The conventional assumption would have it that the curriculum of a school exists as a body of knowledge, agreed upon by the staff and approved by the general community and by district authorities who have some expertise, and this reflects the best thinking about what young people need to succeed in our society.

In opposition to the cultural transmission ideology the Romantic postulates that the most important aspect of human development is that which comes naturally from the individual. The formal pedagogical content can be quite permissive in A.S. Neill's Summerhill (1960), highly controlled as with the methods of Maria Montessori (1964) or non-existent as with Ivan Illich's, Deschooling Society, (1972). In

these examples, the environment is structured-or non-structured-to allow the inner-good of the individual to unfold and the inner-bad to come under control. According to Kohlberg and Mayer (1972:451), "romantics stress the biological metaphors of "health" and "growth" in equating optional physical development with bodily health and optional mental development with mental health."

Carl Rogers (1969) speaks of the "freedom to learn" wherein pedagogy is based upon unconditional positive regard and Ivan Illich (1972:56) wishes us to deschool society because "most learning is not the result of instruction. It is rather the results of unhampered participation in a meaningful setting". Implicit in both Rogers' and Illich's analysis is the assumption of a fundamental human essence in all of us, preceding all social experience potentially blossoming but repressed by manipulative institutions." (Gintis, 1976:18)

The Romantic Ideology has some affinity with interpretive and phenomenongical approaches to education. Education and learning is seen as not coming from a collection of external stimuli, but rather from processes which have intrinsic meaning characterized and sustained by individual interpretations of social reality. Knowledge becomes not something given in advance, but rather phenomenon produced by individual actors; it becomes always problematic rather than reified. To say "I learned this" means not that I consumed or in Paulo Freire's (1970) terms banked "this knowledge" rather I have simultaneously constructed, and interpreted "this knowledge" to uncover its meaning

and significance.

The dangers in the romantics interpretive ideology are the possibility of an ethical relativity and an ignoring of social structure and contexts. If reality is what we make of it as we understand it, then our ethical conclusions are as good or bad as anyone else's. Kohlberg and Mayer (1972:471) write of A.S. Neill's belief in allowing children freedom to be themselves:

> In Neill's view it is not clear whether there is a standard of development, i.e., some standard of goodness which children who grow up freely all meet or whether children who grow up freely are good only by their own standards, even if they are thieves and villains by some external standards.

The contextual criticism or rather non-contextual criticism of the romantic/interpretive ideology is its neglect of questions about the relationships among individual interpretations of meaning. There cannot be an infinitive range of meanings available to the self to interpret for cultures, because they are cultures, a priori limit the possible scope of interpretation. In Carr and Kemmis: (1986:95,96) terms:

> Social reality is not simply something that is structured and sustained by the interpretation of individuals - it also determines the kind of interpretations of reality that are

> appropriate for a particular group of individuals to possess... (and)...social processes such as language and cultural production and reproduction shape our experiences of the social world in specific ways.

Thus, there is no natural state in which we are born and then construct meaning, rather we are born and our interpretations are formed by the norms and conventions of our culture. And beyond this formation is the hard fact that our socially bound interpretations may be just plain wrong. Our sense of reality may mask the true reality in important ways for "understandings of individuals may be conditioned by false consciousness and how certain social mechanism operate to blind people to irrational and distorted ideas about their social reality" (Carr and Kemmes, 1986:96).

The Progressive Ideology has its foundations in the pragmatism of Dewey and the cognitive/moral developmental psychology of Piaget and Lawrence Kohlberg. It holds that education should foster one's natural relationship with the culture through active engagement of an individual's thinking through generating cognitive conflict. Knowledge therefore is an "active change of thinking brought about by experiential problem-solving situations" (Kohlberg and Mayer, 1972:455).

Development for the progressive is not an innate unfolding of growth and health in unconflicted environment or a series of personal interpretations of reality as it is for the romantics. Nor is it the accumulation of knowledge or the learning of socially accepted rules and canons as it is

for the cultural transmitters. Rather, development is "a progression through invariant ordered sequential stages (in which) the educational goal is the eventual attainment of a higher level or stage of development in adulthood." (Kohlberg and Mayer, 1972:455).

Cognitive stage theory is central for the progressive claim. Kohlberg and Mayer (1972:58), drawing from Piaget, define stages as follows:

1. Stages imply distinct or qualitative differences in modes of thinking.
2. Modes of thinking form invariant sequences, orders, or successions.
3. Modes of thinking are structural wholes,
4. Stages are hierarchial integrations which form and order increasing differentiated and integrated structures to fulfill a common function.

The attainment of a stage means that the prior stage has been attained, the higher stage is a transformation of the lower stage into something more complete, more adequate, more differentiated and integrated. The movement from a lower to a higher stage occurs as in D=f,pe wherein development is a function of a dialectic interaction between the person and the environment. This stimulation happens only under conditions of disequilibrium, that is, a felt discrepancy between what is and what ought to be.

Thus, the progressive aim of education is to provide discrepant experiences which facilitate stage development. Kohlberg and Mayer (1972:459) write:

> As applied to educational intervention, the theory holds that facilitating the childs' movement to the next step of development involves exposure to the next higher level of thought and conflict requiring the active application of the current level of thought to problematic situations....Basic mental structure results from an interaction between organismic structuring tendencies and the structure of the outside world not reflecting either directly.

Unlike the cultural transmission behaviorists' ethical neutrality, or the romantics' decontextualized ethical neutrality, the progressive recognizes the unescapable connection between cognition and value, between knowledge and ethics. The development of critical cognitive thought is a necessary component of moral thought. While both develop under conditions of social conflict and interaction, it is the moral which is ultimately privileged. Thus, a progressive morality is one which "is neither the internalization of established cultural values nor the unfolding of spontaneous impulses and emotions; it is justice, the reciprocity the between the individual and the others in ...(the)...social environment." (Kohlberg and Mayer, 1972:455)

The Critical agrees with much of the progressive argument. While it does not necessarily rely on the social-psychological construct of stage development, it finds itself in essential agreement with the necessity of ethics at the core of educational discourse. Additionally, the critical educationist, just as the phenomonologist and the progressive accepts the

social constructed notions of knowledge, yet goes beyond to examine the cultural meanings embedded in any knowledge. That is, the critical aim is to have individuals become capable of conceiving knowledge as problematic and subject to distortion yet subject to understanding and change. The grist for critical educators' mill is stated succinctly by Aronowitz (1977:47).

> The powerlessness and confusion in daily life can only be understood through critical thinking, yet most people are alienated from their own conceptual habits of mind. How come? Why don't masses of people engage in social reflection? Why isn't introspection on inhibitual awareness of how the whole system operates, and which alternatives would best serve human needs? Why is political imagination driven from common experience?

Aronowitz, it seems to me, captures the essence of a critical education stance, how can we all, but in particular the least favored, the disenfranchised, the powerless come to understand the reasons and forces which present us from becoming fully human?

Perhaps the best contemporary proponent of a critical education is Paulo Freire (1970,1978,1981). As I have written elsewhere (Wilson, 1988:87,88) embedded in his work is the idea of "conscientizaçao", a dynamic process fusing conscience with consciousness through problem posing. Problem posing has at least three aspects: (1) The way problems are named or defined; (2) the nature of individuals' reflection or understanding of the causes; and (3) the types of actions people tell to resolve the problem.

The term problem posing is used by Freire rather than problem solving.

Problem solving implies the existence of discrete puzzles which can be overcome if time, patience, skill and often technology prevail. Problem posing, or as he often phrases it, "problematizing" is the process of critical analysis itself. To problematize is to make reality concrete and clear. The increase of knowledge and awareness or "critical consciousness" of reality which emerges is then applied to transform that reality.

William Smith and Alfred Alschuler (1976) make clear Freire's theory that individuals adapt a sequence of three basic modes of problem posing; the magical, the naive, the critical. In the magical, individuals either do not recognize problems or see them as permanent and unchangeable. Conforming and passive acceptance of the situation are the norm. In the naive position, problems are perceived as individual deviations from the rules. These deviations occur because individuals are inadequate. Change occurs as individual behavior is reformed. In the critical position, problems are issues of roles and rules within cultural and social norms which place groups in conflict with each other. At this level, "systems", not individuals, are seen as deficient. Change, therefore, must transform the system, internalized roles, and the person.

Figure 1 indicates the Freiran relationship among the three aspects of problem posing, and the three modes of thinking about the problems.

INSERT FIGURE 1 HERE

For Freire, transformation takes place through dialectical - he calls it dialogical - praxis, which is an integration of action and reflection. One learns, thinks and acts. The action taken is then made problematic, reflected upon, and new action taken. Freire is quoted by Sirotnik and Oakes (1983:92),"...Thus, problematization implies a critical return to action it starts from action and returns to it. The process of problematization is basically someone's reflection on a content which results from an action or reflection on the act itself in order to act better with others within the framework of reality."

This notion of reflection upon practice has been further explicated by Chris Argyris. As I summarized, (Wilson, 1988:88-92), he postulates that two kinds of theories, an espoused theory and theory-in-use guide behavior. Espoused theories are reasons or principles individuals use to explain their actions in specific situations. Yet these theories often, (more precisely, usually) do not match individual theories-in-use, the principles inferred from observation of the behavior. Heller states (1983:139):

> If one observes a segment of behavior and infers from it the principles a person must have used to produce it, the inferred theory-in-use bears little resemblance to the person's espoused theory. The result is pervasive inconsistences between what people say they do and what they actually do. For example, while many members of an institution publicly pronounce their desire for cooperation and collegiately, in actually their behavior may be characterized by conflict and power struggles.

As Argyris declares and, as sensitive observes of human nature testify, this observation, in and of itself, is not particularly new. What Argyris

has discovered is that while people do not act in accordance with espoused theory, they do behave congruently with their theories-in-use. At the same time, individuals remain mostly unaware of both the lack of consistency between their espoused theory and behavior and the congruence between the behavior and theories-in-use.

The guiding theory-in-use for the vast majority of people, termed Model 1, has four governing variables (1) Achieve your purpose as you defined it; (2) Win, do not lose; (3) Suppress negative feelings; (4) Emphasize rationality (Argyris 1982:86). Each variable within Model 1 has consequence for the person, other individuals, and the environment. Model 1 behavior is designed to control the environment and situations, control task, and protect others from being hurt, all unilaterally. These actions in turn produce defensive and closed interpersonal relationships, reduce valid feedback, and limit free choice. Under such conditions, people rarely seek genuine information about their own behaviors. Those controlled will tend to be diplomatic, to play it safe, and not upset others. And all involved covertly collude to prevent issues from surfacing which may bring into question the four governing variables. The result, according to Argyris is single-loop learning "because the actor learns only within the confines of his and her theory-in-use. Few people will confront the validity of the goal of their values implicit in the situation (1982:88). Argyris believes that Model 1 dominates most thinking within such organizations as universities, consulting firms, entrepreneurial firms, alternative schools, and behavioral science research (Argyris, 1980).

The metaphor of the thermostat to control heat in homes further explains single-and double-loop learning (Argyris 1982). The thermostat can single-loop learn as it responds to adjustments, or variables, which are decided for it, to keep heat within predetermined limits.. But the thermostat never asks whether the present temperature is the correct temperature, nor does it ever ask: "What am I doing?" or "What does it mean to be a thermostat?" In other words, it never goes beyond the predetermined variables. In double-loop learning, such questions would be asked. The predetermined variables themselves would be brought into serious questions.

By making the obvious problematic and by establishing a different set of governing variables, Argyris creates a Model II world. This world is characterized by the following variables (Schön, 1983:231):

1. Give and get valid information
2. Seek out and provide others with directly observable data and correct reports, so that valid attributions can be made.
3. Create the conditions for free and informed choice
4. Try to create, for oneself and for others, awareness of the values at stake in decision, awareness of the limits of one's capacities, and awareness of the zones of experience free of defense mechanism beyond one's control.

5. Increase the likelihood of internal commitment of decisions made.

7. Try to create conditions, for oneself and for others, in which the individual is committed to an action because it is intrinsically satisfying-not, as in the case of Model I, because it is accomplished by external rewards or punishments.

Argyris' work is not unusually included as part of critical analysis, yet he has linked his theory of action science to critical theory with particular reference to Jügern Habermas (Argyris, Putnam and Smith, 1985, 71-75). Argyris argues that his Model II world is justifiable because it speaks to the same issues as does Habermas' theory of communicative competence. According to Carr and Kemmis (1986:140) communicative competence is a theory of ethical self-realization "....which transposes the source of human ideals onto language and discourse" (p. 141). Discourse as an ideal speech situation, is an ethical act to be guided by four validity claims which, when met, provide for consensual resolution and communicative competency. From Sirotnik and Oakes (1983:76-77), these claims are:

(1) Comprehensibility. Utterances must be understood; misunderstandings must be clarified, exemplified, illuminated, etc. before further communication even transpire.

(2) Factuality. All available and mutually recognized pertinent information must support the truth of utterances; this can often involve a form of dialectal argument and counter-argument.

(3) Sincerity. The speaker must be truthful and the hearer must trust the intentions of the speaker; both parties show good faith through their actions.

(4) Justifiability. The rightness or righteousness of utterances must be recognized by all parties as not only appropriate or legitimate for the speaker but, more important, appropriate relatively to a commonly accepted value system: problematic validity claims are again subjected to the force of argument (as in 2 above), but now the dialectal format is one of normative critique.

When these conditions are met, the result is rationality, freedom, justice, and truth. Yet Habermas recognizes that the ideal speech act is just that, an ideal and that perfect communicative competency is unrealistic. It is possible to "design.. an ideal speech situation "yet" we are unable to realize the ideal speech situation, we can only anticipate it " (Habermas, 1970:372).

But it is this anticipation alone which warrant our seeking consensus, not any consensus, but the best possible one under existing conditions. And this consensus would not be a false consensus as so often is the case in the behavioristic notion of the word. The important factor is in using and esteeming the four valuables as design criteria for the ideal speech situation.

Thus, a critical educational theory holds that emancipatory knowledge can only occur, or be constructed in situations characterized by "mutual trust" ... of ideals, facts, and values and between the people that share and act upon them" (Sirotnik and Oakes, 1983:77). The knowledge so generated through trust is empancipatory for it forms the basis for the transformation of culture through self-reflective process directed against domination and guided by dialogical relationships, Model II open relationships and communicative competence. And, to be critical in education is not an easy or smooth task.
Giroux's (1985: xiii, xiv) comments are most germane in that:

"education represents....both a struggle for meaning and a struggle over power relations...(and)... it represents the need for a passionate commitment by educators to make the political more pedagogical, that is, to make critical reflection and action a fundamental apart of a social project that not only engages form of oppression but also develops a deep and abiding faith in the struggle to humanize life itself."

The delineation of the four ideologies with now hopefully in hand, the issue becomes one of determining their relationship to instruction design as I have defined it previously. To do this I have devised a herustics, Figure 2, to help in the discovery. Each of the form ideologies are

crossed with the four questions: who, what, whom, why, how, wherein:

Who= Who does the design, who is responsible?

What= What is designed, what is the focus?

Whom= For whom is the designed intended, who benefits?

Why= Why design in the first place, what is the purpose?

How= How is the design to be done, what procedures, what mechanisms?

INSERT FIGURE 2 HERE

As I worked on Figure 2, I felt a need to complete each cell, yet I found it exceeding difficult to do. Again, the ideas are not amendable to precise classification, just as cats, they more off on their own. It has become clear to me that move adequate work on the heuristic requires a collaborative effort. Thus it is offered at this time as largely incomplete task requiring further dialogue. The reader is invited to participate.

Incomplete as it is, and perhaps because it can not be completed, the heuristic raises a final issue: is instructional design appropriate to each of the four ideologies. In its classic sense, the answer is NO, for it has grown from the positive tradition within the cultural transmission ideology. It reflects and at the same time contributes to the dynamics of that ideology, it can not escape its own culture in its current form. And in its current form, it contributes to the negative sense of ideology in

that its use is ultimately predicated on conditioning and conditioning carries the burdens of plot, scheming, and unilateral control. My original definition of instructional design is "a preplanned process by which knowledge and the requirements for gaining knowledge are given from a source to a receiver." If the planning is done by all those affected by the plan by the "interpretive community", if knowledge is perceived as socially constructed, non-hierarchial, underterminate, and continually under negotiation and the source and the receiver are the same individuals within an assenting community, then instructional design becomes justifiable and defensible. In a progressive ideology design would establish interventions which stimulate stage development and experiences which produce cognitive and moral conflict. In the critical, design would create self-reflective contexts guided by an ethic of dialogue, open Model II variables, communicate competence, resistance to domination and movement toward social justice. While the cultural transmission and romantic idealogies can contribute to such aims, it is the critical, and to a lesser extent the progressive to which we must turn. A critical instructional re-design is required to advance the critical agenda. Such redesign will help us all move from the embedded plot of current design to a redesign of artistic beauty in the liberating service of humankind.

FIGURE 1
ASPECTS AND MODES OF PROBLEM POSING

Aspects of problem posing	Modes of Problem Posing		
	Magical Problem posing	Naive Problem Posing	Critical Problem Posing
Naming	No problems or facts of existence	Individuals' behavior deviates from ideal role or rules	Unjust or conflict-producing rules and roles of the system
Reflecting on causes	External, inevitable	Individual inadequacies	Historical causes; vested interests of some people; internalization of roles and rules by others
Acting	Accept passively conform	Reform individuals	Transform internalized roles and rules and change the system's rules and rules

Source: Smith and Alschuler 1976, xi

Figure 2
Educational Ideologies and Five Questions

	WHO	WHAT	WHOM	WHY	HOW
Cultural transmission	External Designers Controllers (Skinner)	External Environment A Priori	Individual the Society ..... The Designers	Freedom ..... Technical, Social Control	Prediction Systems Design, Technology, Behavior Modification
Romantic	External Facilitators	External Environment (Illich's Network)	Individual	Practical Understanding Freedom ..... Growth Value Relativity Cultural Silence	Interpretation Games, Structured Experiences Sensitivity Training Encounter Groups
Progressive	External Facilitators	External Environment every day life	Individual The Community ..... Experiences	Higher stage Development ..... Politics of every day life Ahistorical Class ignorance	Interactive Discussion Cognitive conflict Experience
Critical	External ALL Affected Interpretive Community	From generative Themes Problematizing	Individual all affected Interpretive communities The System	Liberation Critical Conscience Emancipation ..... Dialectical Contradictions Rationality	Reflection Dialogue Communicative Competence

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